



CCAFS CU CARBON FOOTPRINT REPORT 2012 AND ACTION PLAN 2013

CONTENTS

1. INTRODUCTION	1
2. EMISSIONS IN 2012 AND OBJECTIVES FOR 2013	3
3. GHG EMISSIONS OF CCAFS CU ACTIVITIES IN 2012	4
3.1 AIR TRAVEL	4
3.2 EVENTS	7
3.3 OFFICE	10
3.4 PUBLICATIONS	12
4. CCAFS ACTION PLAN 2013	14

1. INTRODUCTION

In 2011 CCAFS Coordinating Unit (CCAFS CU) initiated a carbon footprint plan including emission reduction targets and offsetting. In 2012 the calculation model applied were reviewed and later verified by Grontmij. In general Grontmij found the calculations well structured, thorough and based on reliable data. However, in order to make the calculations more transparent and to ensure consistency for the production of comparable data over time some adjustments have been made.

Compared to 2011, the 2012 calculations have been simplified but at the same time the inventory boundary has been extended to include all activities where CCAFS CU can directly influence the operation, scale and/or design of the activities. These adjustments, recommended by Grontmij, are the main reason why CCAFS CU greenhouse gas (GHG) emissions have increased in 2012.

Figure 1 illustrates activities encompassed by the 2012 inventory boundary. The biggest changes compared to 2011 are that the following three additional activities have been included; 1) energy consumption from abroad offices, 2) emissions from shipping publications and 3) air travel emissions of CCAFS CU sponsored participants in connecting with events hosted by CCAFS. Activities of ISP and PMC members have only been included if the members are sponsored by CCAFS CU.

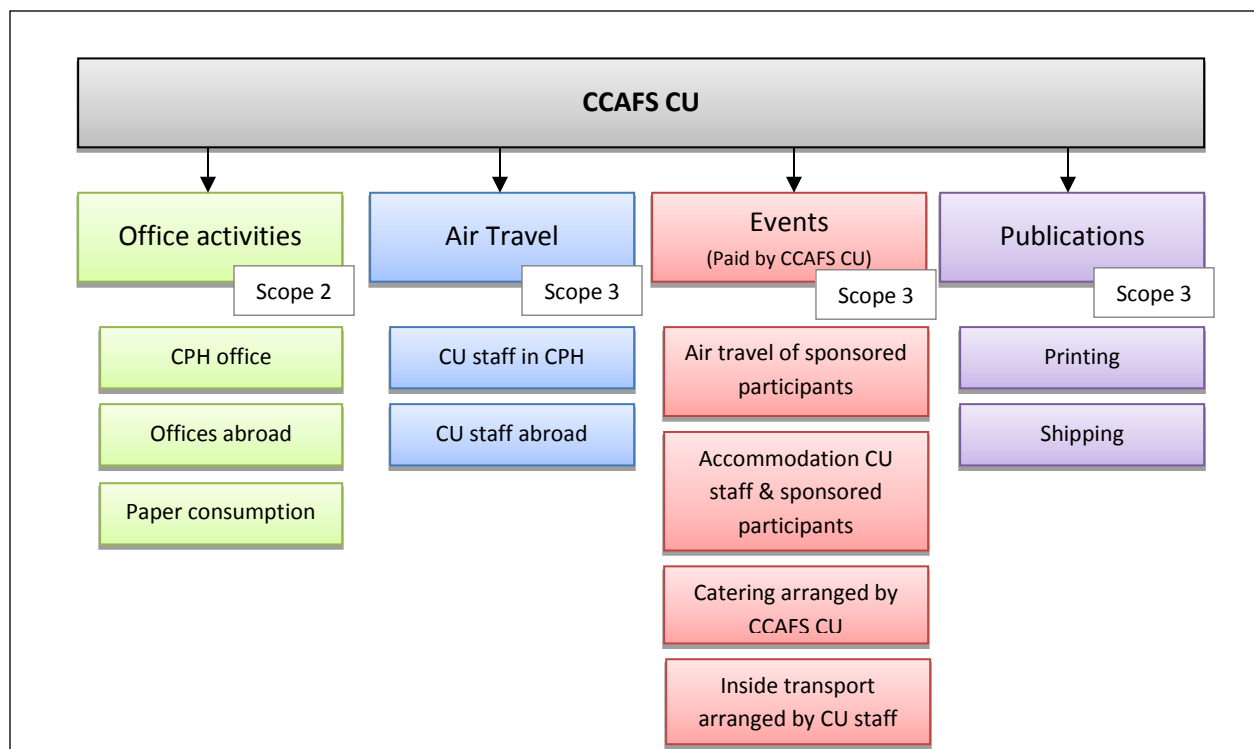


Figure 1, Inventory boundary of CCAFS CU GHG calculations

These changes are reflected in figure 2. The significant decrease in emissions from air travel activities is due to the fact that all travels in 2012 have been on economy class.

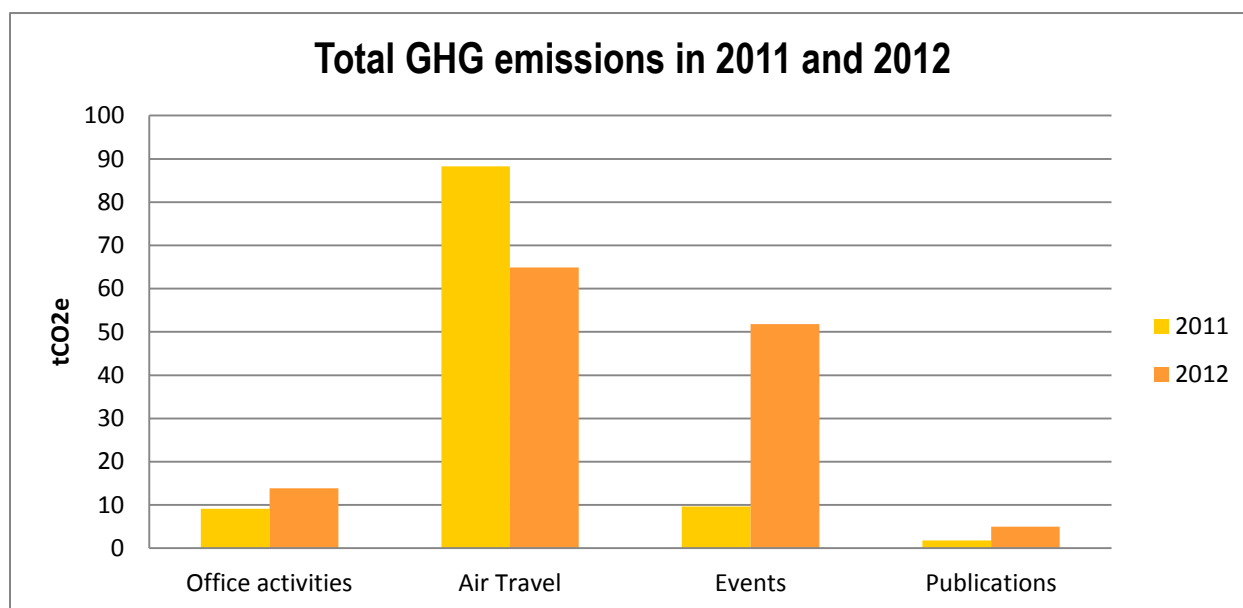


Figure 2. Total GHG emissions for 2011 and 2012.

Air Travel

In 2012 the total emissions from air travel were 64.9tCO₂e; compared to 2011 where emissions were estimated to be 88.3tCO₂e, this is a **reduction of 26.5%**. The reduction is due to no business class flights have been purchased for CU staff in 2012.

Events

In 2012 the total emissions from CCAFS events were 51,8tCO₂e; compared to 2011 where emissions were estimated to be 27.8tCO₂e, this is an **increase of 46%**. The main explanation for this increase is that air travel activities of CCAFS CU sponsored participants have been included in the calculations.

Office Activities

In 2012 the total emissions from office activities were 13.9tCO₂e; compared to emissions of 8.7tCO₂e in 2011 this is an **increase of 58,5%**. This increase is mainly due to 1) the method of calculation for CCAFS CPH office and 2) the expansion of the inventory boundary now including the emissions from CCAFS CU offices abroad (Indonesia, UK and Colombia).

Publications

In 2012 the total emissions from CCAFS publications were 5 tCO₂e; compared to 2011 where emission were estimated to be 1.6 tCO₂e, this is an **increase of 214%**. The main reason for the increase is that the emissions from shipping the publications have been included in the 2012 calculations.

2. EMISSIONS IN 2012 AND OBJECTIVES FOR 2013

The total GHG emission of CCAFS CU activities in 2012 is calculated to be **135 tCO₂e**. Compared to the 2011 emission of **110 tCO₂e** it is a **23% increase**. However, as mentioned above the increase is mainly due to adjustment of the GHG calculation model and an extension of the inventory boundary as recommended by Grontmij A/S.

Total Emissions 2012	
Scope 1	
Scope 2	
Office Activities	13,8 tCO ₂ e
Subtotal Scope 2	13,8 tCO₂e
Scope 3	
Air travel CU	64,9 tCO ₂ e
Events without CU travel	51,8 tCO ₂ e
Publications	5,0 tCO ₂ e
Subtotal Scope 3	121,7 tCO₂e
Total	135,6 tCO₂e

As illustrated in figure 3, the main sources of emission are air travel by CCAFS CU staff and emissions from events hosted by CCAFS CU. These two categories account for 48% and 38% respectively. Office activities accounts for 10% while printing and shipping publications only accounts for 4% of the total GHG emissions from CCAFS activities.

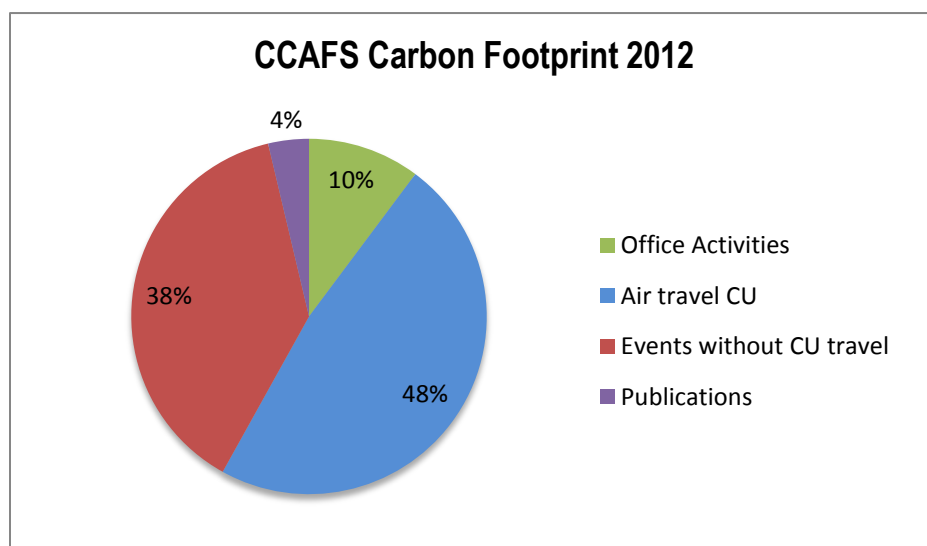


Figure 3, Total GHG emissions in 2012 from different CCAFS activities.

As recommended by Grontmij the ***focus areas for reducing GHG emission in 2013 should be on air travel activities and events***. For air travel, reductions should be obtained reducing the amount of travels and by choosing long-haul flight (more than 2000km), minimizing the number of transits whenever possible and economically viable. For events, CCAFS should focus on selecting good practice hotels and continue to strive having at least one vegetarian meal per event (see proposed actions below and in Action Plan 2013). With the new template for calculating CCAFS GHG emissions, figures for 2012 and 2013 will in contrast to the 2011 figures be directly comparable.

3. GHG EMISSIONS OF CCAFS CU ACTIVITIES IN 2012

In this section each category are examined more thoroughly and the 2012 figures are compared to the figures from 2011. Reduction targets set for 2012 are analyzed and an action plan for reductions in 2013 is presented. For a detailed explanation of the calculation please see the 2012 calculation document. The categories will be presented in order of importance for CCAFS total carbon footprint.

3.1. AIR TRAVEL

This category comprises the carbon footprint associated with the air travel activities of CCAFS CU staff. CCAFS will only account for the connections financed by the Coordinating Unit.

In 2012 the total emissions from air travel were **64.9tCO₂e**; compared to 2011 where the emissions were estimated to be **88.3tCO₂e**, this is a **reduction** of **26,5%**.



Figure 4, emissions from air travel activities of CCAFS CU staff in 2011 and 2012 respectively. The significant reduction in Bruce's and Sonja's travel activities is primarily due the fact that all travels in 2012 has been on economy class.

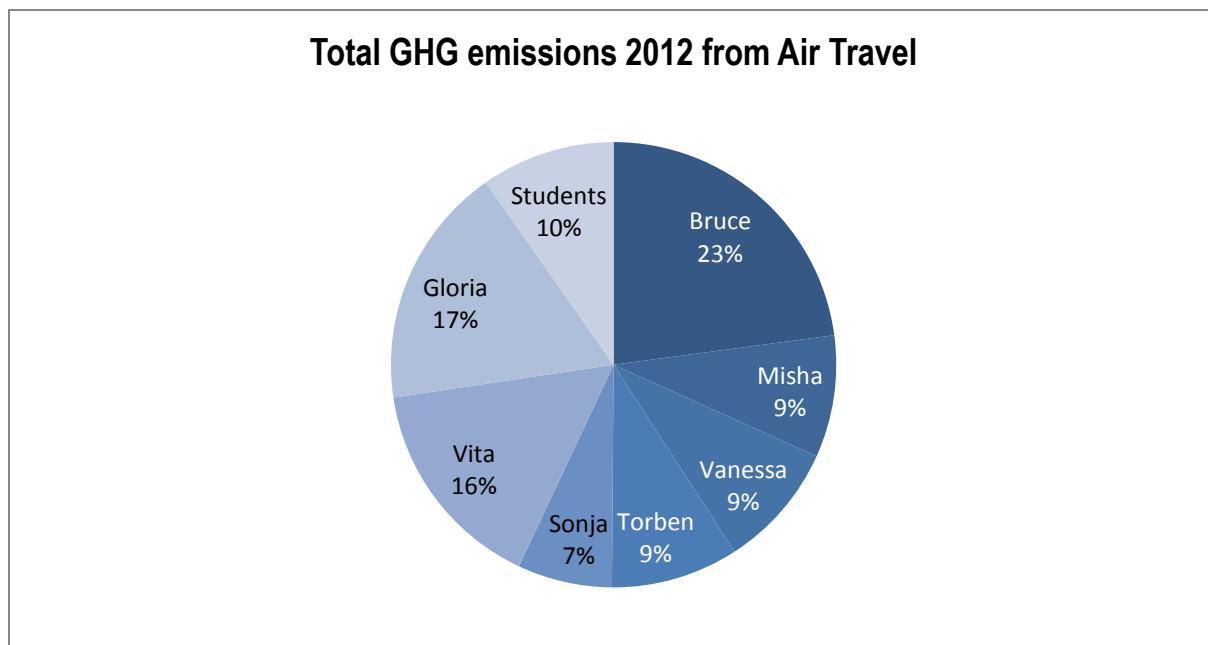


Figure 5, emissions from CCAFS CU air travel activities divided by staff.

Only looking at the objective for 2012, which was to reduce emissions from travel activities with 15%, the goal was reached. However, the goal was not reached by reducing the amount of travels as proposed in the 2012 objective but by choosing only to travel on economy class. If no CCAFS staff had travelled business in 2011 the total emissions associated with air travel would have been roughly the same in 2011 and 2012. Figure 4 illustrates the changes in emissions from 2011 to 2012 divided between CCAFS CU staff.

Looking at the division between CCAFS CU staff the travel activities of Bruce, Gloria and Vita contributes the most with 23, 17 and 16% respectively. The remaining 44% of the total emissions from CCAFS air travel activities is more or less equally divided between Sonja, Torben, Vanessa, Misha and the student assistants of CCAFS CU. Figure 5 illustrates this division.

3.2.1. Assessment of action plan 2012 and proposed actions 2013: CCAFS CU air travel activities

Suggested actions and objectives for 2012	Evaluation of 2012 objectives
Reduce business tickets for Bruce and Sonja	Achieved. All travels have been economy class
Centralize flights booking (flights in one document)	Achieved. A booking travel document is available at CCAFS Intra, and all travel bookers update the document continuously. The document is monitored by the appointed carbon footprint student assistant
Reduce the number of travels	Not achieved in overall terms. While Torben and Sonja have reduced the amount of travels in 2012, most of the rest of the CU have traveled more mainly due to major events (Rio+20) and because student assistants have assisted at the major events

Proposed actions for 2013

Looking at the evaluation for the 2012 objectives and the distribution of emission sources related to air travel, the following actions for 2013 are proposed:

- Continue to investigate options for reducing the number of travels by providing feasible alternatives (such as online meeting attendance, group various meetings into single trips, substitute presence with locally/regionally based representatives etc)
- Continue to prioritize trips and critically assess if physical presence is required
- Whenever possible and economically viable choose long-haul flight (more than 2000km) to minimize the number of transits
- Logistics and exhibit booths: continue and strengthen collaboration with colleagues and CGIAR-representatives based in the region where an event is held to assist with logistics and showcase CCAFS materials

3.2. EVENTS

This category comprises the GHG emissions from events hosted by CCAFS. The calculations is divided in 4 emission categories: 1) Air travel of sponsored participants, 2) Accommodation of CCAFS CU staff and sponsored participants, 3) Catering arranged by CCAFS CU and 4) inside transport of CCAFS staff and arranged group transport. To avoid double-counting air travel by CCAFS CU staff is not included.

In 2012 the total emissions from CCAFS events was **51,8 tCO₂e**; compared to 2011 where emissions were estimated to be **27.8tCO₂e**, this is an **increase of 46%**. The main explanation for this increase is that air travel activities of CCAFS CU sponsored participants have been included in the calculations.

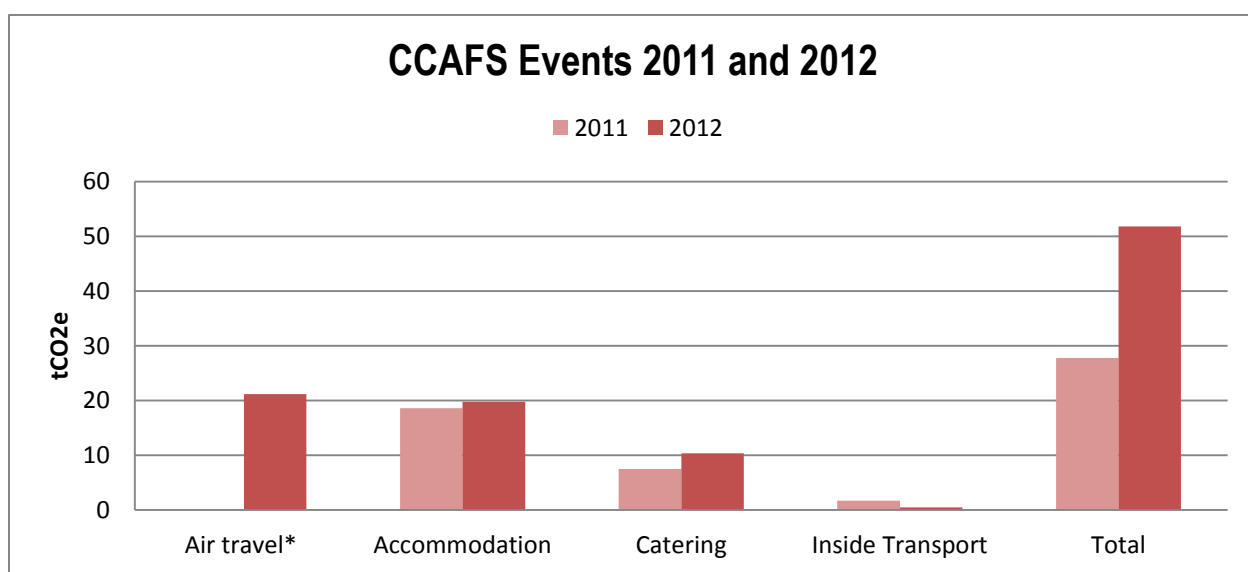


Figure 6, emissions from CCAFS events divided by category: Air travel, Accommodation, Catering and Inside Transport.

*Without CCAFS CU Airtravel.

With regards to emissions from accommodation, the calculation methods have changed significantly. First, four of the categories in the 2011 calculation (waste, electricity, air-conditioning and material consumption) have been merged into one category called 'Accommodation'. Emissions from accommodation are based on average figures of energy consumption provided by ECOTRANS 2006. Figure 6 illustrates the changes in emissions related to CCAFS event from 2011 to 2012.

In general, air travel of sponsored participants is the main source of event-related emissions. However, the distributions of emission sources may differ depend on the type and location of the event. In 2012 CCAFS hosted/arranged four major events: Copenhagen meetings (ISP, PMC, Contact Points and Science Meeting), ARDD in Rio de Janeiro, ISP/PMC Meeting in Ouagadougou and ALL 5 in Qatar. Figure 7 illustrates the distribution of emission sources for each of the four major events paid by CCAFS in 2012.

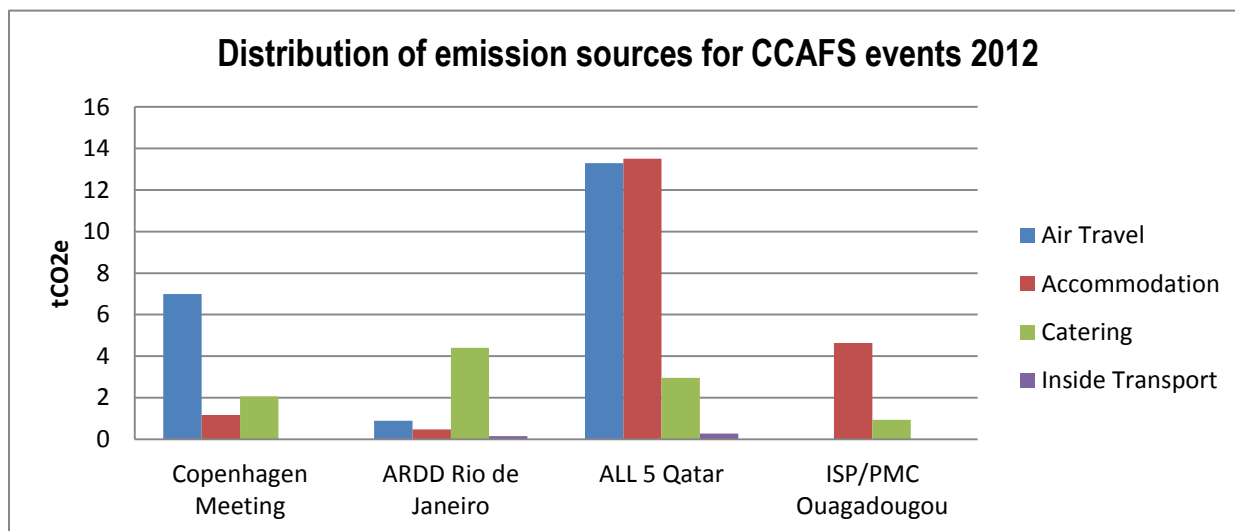


Figure 7, distributions of emission sources for each of the three major events hosted by CCAFS in 2012

As also illustrated in figure 7, ALL 5 in Qatar accounts for half of the emissions associated with CCAFS events. The main reason for this is the number of sponsored participants for this event, which is significantly higher compared to the other events; this is illustrated in figure 8.

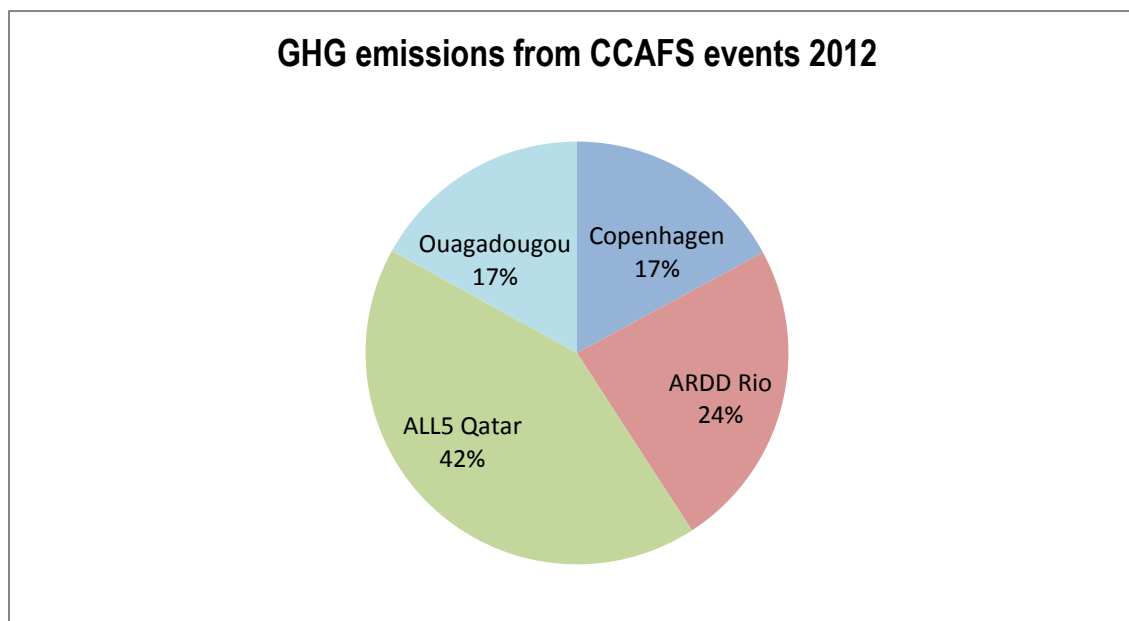


Figure 8, contribution of GHG emissions of the different CCAFS events.

3.2.1. Assessment of action plan 2012 and proposed actions 2013: CCAFS events

Suggested actions and objectives for 2012	Evaluation of 2012 objectives
Select eco-friendly suppliers (especially hotels and restaurants)	Partly achieved. Eco-friendly events check list available on Intra. When possible eco-friendly hotels have been selected such as for Copenhagen meetings. However, in many countries especially developing countries, certified eco-friendly service providers are not available.
One mandatory vegetarian meal per event	Partly achieved. Vegetarian or white meat catering at major CCAFS events and stakeholder dinners. Meat option offered at ARDD and All Day due to cultural politeness
Access to publications via intranet and/or USB sticks	See under “publications”
Use public transport and eco-friendly taxi companies	Partly achieved. Whenever possible CCAFS staff uses public transport and certified taxi companies in Denmark. Difficult to select eco-friendly taxis outside Europe.
Integrate events check-list in the events tool	Pending. Check list with eco-friendly service providers available on CCAFS Intra but remains to be incorporated in the overall events tool.
Always propose voluntary offsetting to participants	Pending. Needs to be incorporated into the events planning tool.
Estimate emissions of ISP and PMC for 2011	Cancelled
Increase live streamed presentations and online meeting options	Achieved: 4 live streamed video science seminars + online participation at major CCAFS events in Rio and Qatar

Proposed actions for 2013

Looking at the evaluation for the 2012 objectives and the distribution of emission sources related to events, the following actions for 2013 are proposed:

- Incorporate the eco-friendly check list into event planning tool and update continuously
- Incorporate voluntary offsetting notification into event planning tool
- Reduce the amount of sponsorships
- Ensure paper-smart solutions are implemented for all CCAFS meetings (meeting documents available on Intra, website and/or USB-stick)
- Encourage the use of public transportation whenever feasible in the event guides, participants notifications etc.

3.3 OFFICE

This category calculates CCAFS Carbon footprint associated with energy consumption from office activities including electricity, district heating, air conditioning and printing. Transportation of CCAFS CU staff to and from the office was not included in the calculation of office related activities. All CCAFS staff is encouraged to take public transportation or bicycle to and from the office.

In 2012 the total emissions from office activities were **13.9tCO₂e**; compared to the emission of **8.7tCO₂e** in 2011 this is **an increase of 58,5%**. However, the main difference from 2011 to 2012 is to be found in 1) the method of calculation for CCAFS CPH office and 2) the expansion of the inventory boundary now to include the emissions from CCAFS CU offices abroad (see figure 1). Thus the only directly comparable figures in the office activities category are emissions from paper consumption at CPH office, which is roughly the same in 2011 and 2012.

The figures used in the 2012 calculation for CCAFS CPH office were adopted from the UCPH Green Campus report, whereas the 2011 calculations were based on an estimate of the average energy consumption per person per year.

The figures used for the 2011 calculation represented the energy consumption of an average household, not for an office. Figure 9 illustrates the changes in emissions from office activities from 2011 to 2012.

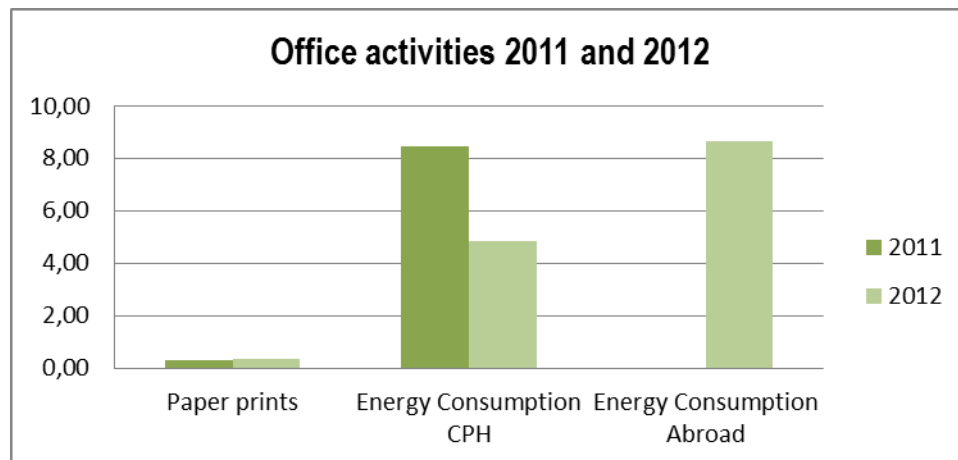


Figure 9, Illustration of the changes in emissions from office activities from 2011 to 2012. Total emission in 2011 was 8.7 tCO₂e and 13.9tCO₂ in 2012, which correspond to an increase of 58.5%.

Looking at the distribution of emission sources related to office activities CCAFS CU offices abroad is by far the greatest source, accounting for **63%** of the total emission in this category. The emission from CPH office accounts for 35%, while paper consumption only accounts for 2%. This is illustrated in figure 10.

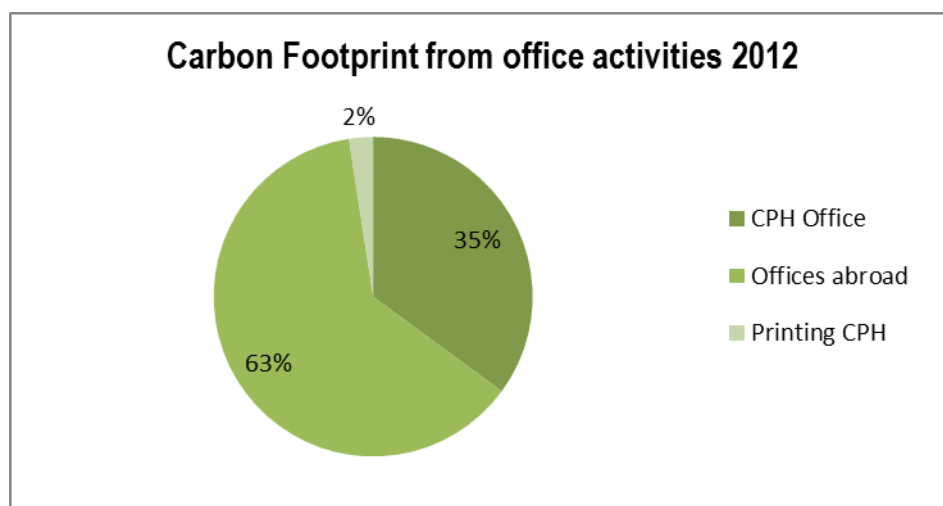


Figure 10, shows the distribution of emission sources related to office. The emissions are divided as follows: Abroad offices, 8,66 tCO₂e corresponding to 63%; CPH office, 4,86tCO₂e corresponding to 35%; and printing accounts for 0,34tCO₂e corresponding to 2% of the total emission from office activities.

3.3.1. Assessment of action plan 2012 and proposed actions 2013: office activities

Suggested actions and objectives for 2012	Evaluation of 2012 objectives
Estimate office emissions for 2011	Achieved: Improved calculation factors are in place
Electricity and heat in CPH office; installation of electric and heat meter to make more accurate calculations of the energy consumption	Not achieved: Installation of electric and heat meter is not possible
Code of conduct for staff at the office to promote climate friendly behavior	Partly achieved: In 2012 a code of conduct was prepared but was shared with CU staff early 2013 (renamed green guidelines)
Online version of the Carbon footprint initiative (intranet + web site)	Achieved
New low energy lights bulbs	Achieved
More energy efficient electronic devices (screen, computers, fridge)	Partly achieved: Screens, computers and fridge have not been replaced as devices are new. However, when purchasing new devices CCAFS CU take energy efficiency into consideration
Training staff to GHG accounting	Achieved: student assistant trained and handling all calculations
Low carbon food and beverage at the office	Removed in line with Grontmij recommendation due to low emission importance

Proposed actions for 2013

Looking at the evaluation for the 2012 objectives and the distribution of emission sources related to office activities, the following actions for 2013 are proposed:

- Offices abroad: Implementation of the green guidelines and eco-friendly use of air condition
- CPH Office: Continue the negotiations with Green Campus and Department regarding the possibility of installing electric meter and improve window insulation. Alternatively, an electric meter for measuring single electric devices could be considered purchased to determine where action is most needed
- Paper consumption: Continue looking into paper-smart solutions for meetings and events (see events)

3.4. PUBLICATIONS

This section calculates CCAFS carbon footprint associated with printing and shipping CCAFS publications.

In 2012 the total emissions from CCAFS publications were **5 tCO₂e**; compared to 2011 where emissions were estimated to be **1.6 tCO₂e**, this is an **increase of 214%**. The main reason for the increase is that the emissions from shipping the publications have been included in the 2012 calculations and that calculations are more accurate in 2012 compared to 2011. Almost 50% of the emissions from CCAFS publications are due to transport which is illustrated in figure 11.

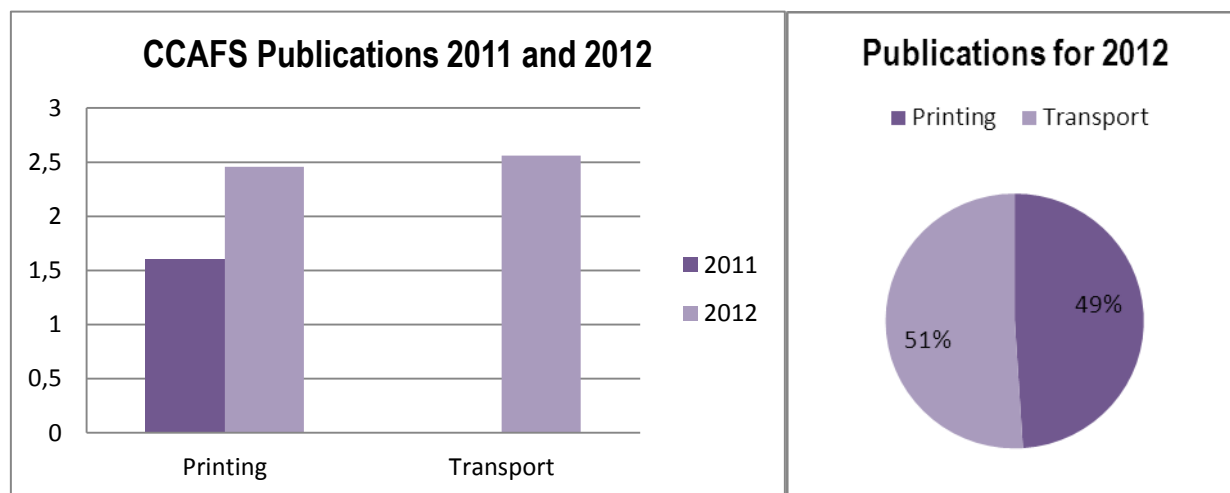


Figure 11, left: emissions from CCAFS publications in 2011 and 2012; right: Emissions from CCAFS publications in 2012 distributed between the actual printing and shipping of the publications. Figure 2, Comparison of CCAFS GHG emissions in

3.4.1. Assessment of action plan 2012 and proposed actions 2013: Publications

Suggested actions and objectives for 2012	Evaluation of 2012 objectives
Move towards a more 'paper-smart' future by creating and using CD-roms and USB sticks	Partly achieved: Initiatives have been implemented. The CGIAR CD was updated with new material and polished during 2012, and will continue to be distributed intensively during 2013 during key events
Include a scan code on the back of the publications that people can scan with their smart phone or Ipad	Achieved: One postcard and one brief from 2012 have bar codes included.
All publications should also be produced in a minor version (policy brief, leaflet or postcard)	Achieved: Program-flyers in multiple languages, postcards, and briefs that summarize lengthier papers were all prepared and distributed
Use colleagues and CGIAR-representatives that are based in the region where an event will be held to showcase CCAFS materials	Achieved
Look into videos and clips to see if they can be used as a supplement to publications	Achieved: During COP18, videos with farmers were shown at the conference booth to get people interested in CCAFS' work. There is a limit to showcasing videos as a replacement for publications, as there is not always a TV or laptop available and comes with a high cost in most cases
Increase provision of bags with CCAFS and CGIAR logo (has a huge potential in showcasing the organization and create recognition)	Achieved

Proposed actions for 2013

Looking at the evaluation for the 2012 objectives and the distribution of emission sources related to printing and shipping CCAFS publications, the following actions for 2013 are proposed:

- Continue assessing and implementing paper-smart solutions, incl. scan codes on publications and other alternatives (website, CD-ROMs, USB-sticks, minor versions). Inspiration can be found in institutions such as the UNFCCC who has requested organisations to limit the number of publications featured during climate change conferences
- Reduce transportation of publications using above alternatives and ensure local printing when possible
- Assess and ensure all CCAFS publications are eco-friendly certified (EU Ecolabel, Nordic Ecolabel, FSC etc)
- Continuously improve registration of printing and shipping of publications (template on CCAFS Intra to ensure accurate registration for calculating related emissions)

4. CCAFS CARBON FOOTPRINT ACTION PLAN 2013

	Objectives	Actions	Costs	Deadline	Responsible
Scope 3					
Air Travel	To reduce CO2 emissions generated by CU travel	<p>Continue to investigate options for reducing the number of travels by providing feasible alternatives (such as online meeting attendance, group various meetings into single trips, substitute presence with locally/regionally based representatives etc)</p> <p>Continue to prioritize trips and critically assess if physical presence is required</p> <p>Whenever possible and economically viable choose long-haul flight (more than 2000km) to minimize the number of transits</p> <p>Logistics and exhibit booths: continue and strengthen collaboration with colleagues and CGIAR-representatives based in the region where an event is held to assist with logistics and showcase CCAFS materials</p>	<p>↘ cost (less flights)</p> <p>none</p> <p>none</p> <p>↘ cost (less flights)</p>	Cont'	<p>Misha, Vanessa + CU staff individually</p> <p>CU staff+Torben & Misha</p> <p>All travel bookers</p> <p>Vanessa</p>
Events	To reduce CO2 emissions generated by CU events	<p>Incorporate the eco-friendly check list into event planning tool and update continuously</p> <p>Incorporate voluntary offsetting notification into event planning tool</p> <p>Reduce the amount of sponsorships</p> <p>Ensure paper-smart solutions are implemented for all CCAFS meetings (meeting documents available on Intra, website and/or USB-stick)</p> <p>Encourage the use of public transportation whenever feasible in the event guides, participants notifications etc.</p>	<p>↗ cost suppliers and venue (+10-20%)</p> <p>none</p> <p>↘ cost (less flights)</p> <p>↘ cost (less printing) but ↗ cost for USB</p> <p>none</p>	<p>April 30</p> <p>April 30</p> <p>Cont'</p> <p>Cont'</p> <p>Cont'</p>	<p>Vita</p> <p>Vita</p> <p>Bruce</p> <p>Vita, Vanessa</p> <p>Vita</p>
Publications	To reduce CO2 emissions generated by CU publications	<p>Continue assessing and implementing paper-smart solutions, incl. scan codes on publications and other alternatives (website, CD-ROMs, USB-sticks, minor versions)</p> <p>Reduce transportation of publications using above alternatives and ensure local printing when possible</p> <p>Assess and ensure all CCAFS publications are eco-</p>	<p>↘ cost (less printing) but ↗ cost for alternatives</p> <p>↘ cost</p> <p>↗ cost (5-10%?)</p>	Cont'	<p>Vanessa</p> <p>Vanessa</p> <p>Vanessa</p>

		friendly certified (EU Ecolabel, Nordic Ecolabel, FSC etc)	none		Vanessa
		Continuously improve registration of printing and shipping of publications	none		Vanessa
Scope 2					
Office	To reduce CO2 emissions generated by CU Copenhagen office	Offices abroad: Implementation of the green guidelines and eco-friendly use of air condition	none	Cont'	Vita, Vanessa, Gloria
		CPH Office: Continue the negotiations with Green Campus and Department regarding the possibility of installing electric meter and improve window insulation. Alternatively, an electric meter for measuring single electric devices could be considered purchased to determine where action is most needed	↗ cost?		Misha
		Paper consumption: Continue looking into paper-smart solutions for meetings and events (see events)	none		Misha, Vanessa